

FLIKHIN, P.

What we saw in Japan. Mast. ugl. 7 no.2:26-29 F '58. (MIRA 11:3)

1. Predsedatel' Tsentral'nogo komiteta profsoyuza rabochikh ugl'noy promyshlennosti SSSR.

(Japan--Description and travel)

FLEROV, G.N.; DRUIN, V.A., kand. fiz.-mat. nauk; CCANESYAN, Yu.Ts., kand. fiz.-mat. nauk; POLIKANOV, S.M., kand. fiz.-mat. nauk; DONETS, Ye.D., nauchn. sotr.; ZVARA, Ivo, nauchn. sotr.; CHERNOV, A.G.; FAYNBOYM, I.B., red.

[Prospects for the synthesis of transuranium elements. Ninth discussion. Participants in the discussion: Flerov, G.N. and others] Perspektivy sinteza transuranovykh elementov. V besede uchastvuiut: G.N.Flerov i dr. Moskva, Znaniye, 1965. 39 p. (Novoe v zhizni, nauke, tekhnike. IX Seriya: Fizika, matematika, astronomiya, no.10)
(MIRA 18:5)

YEMEKEYEV, V.I.; BOBIN, Ye.G.; OSTROUSHKO, I.A.; BURNATSEV, M.V.; DEMIN, K.V.;
PLIKH, V.A.; KRIVCHIKOV, P.F.; CHUGUNOV, L.F.

The IZK pneumatic charging columns with automatic proportioning
of the air. Gor.zhur. no.8:47-49 Ag '65.

(MIRA 18:10)

1. Severo-Kavkazskiy gornometallurgicheskiy institut (for Yemekeyev,
Bobin, Ostroushko).
2. Severo-Kavkazskiy filial konstruktorskogo
byuro TSvetmetavtomatika (for Burnatsev, Demin, Plikh).
3. Tyrnyauzskiy kombinat (for Krivchikov, Chugunov).

BOCHAROV, P.; DOBRA, A.; ZAYTSEV, N.; KALUTSKIKH, N.; KOMOGORTSEV, N.;
KOPANITSA, Ya.; MIKHAYLENKO, I.; ~~ELIKHIN, P.~~; PODZHAROV, P.;
RUZOV, M.; SEMENOV, N.; STAKHANOV, A.; USKOV, A.

Foma Evgen'evich Tiurin; an obituary. Mast. ugl. 7 no.11:32 N '58.
(MIRA 11:12)

(Tiurin, Foma Evgen'evich, 1898-1958)

PLIKHIN, P.

Great tasks of the coal mining industry workers. Sov.profsoiuzy
6 no.18:16-19 D '58. (MIRA 12:2)

1. Predsedatel' Tsentral'nogo komiteta profsoyuza rabochikh
ugol'noy promyshlennosti.
(Coal miners)

PLIKHIN, P.
PLIKHIN, P.

In forty years. Mast.ugl. [6] no.11:3-7 N '57. (MIRA 10:12)

1. Predsedatel' Tsentral'nogo komiteta profsoyuza ravochnikh ugol'noy promyshlennosti.

(Coal mines and mining)

PLIKHIN, P.G.

The Soviet State takes great care of miners. Bezop. truda v prom.
2 no:8:3-5 Ag '58. (MIRA 12:7)

1. Predsedatel' Tsentral'nogo komiteta profsoyuza rabochikh ugol'noy
promyshlennosti SSSR.
(Coal mines and mining--Safety measures)

PLIKHIN, P.G.

Preparing for the 12th Congress of Trade Unions. Bezop.truda v
prom. 3 no.3:1-2 Mr '59. (MIRA 12:4)
(Trade unions--Congresses)

PLIKHIN, P.G.

Fifth congress of coal mining labor unions. Ugol' 33 no. 7:1-3
J1 '58. (MIRA 11:7)

1. Predsedatel' Tsentral'nogo komiteta profsoyuzov rabochikh ugol'noy
promyshlennosti.

(Coal miners)
(Trade unions)

PATY, L.; PLIKHTA, L.

Injecting a fixed quantity of mercury into a vacuum system. Prib.
i tekhn. eksp. 6 no.1:197-198 Ja-F (MIRA 14:9)

1. Tesla Goleshovitse, Praga.
(Vacuum apparatus)

VAYNSHTEYN, B.P.; RAPOPORT, I.B.; PLIKHINSKAYA, Ye.A.

Conditions for regenerating an iron-copper catalyst. Khim. i tekhn. topl. i masel 3 no.6:65-70 Je '58. (MIRA 11:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefti i gaza i polucheniyu iskusstvennogo shidkogo topliva.
(Catalysts)

PLIKHOV, N.D.

Conference on plain and reinforced concrete in the Ukrainian S.S.R.
Bet. 1 shel.-bet.no.1:35-36 Ja '57. (MLRA 10:3)

L. Zamestitel' gosudarstvennogo stroitel'stva U.S.S.R.
(Concrete construction--Congresses)

PLIML, J.

PLIML, J.; PROTIVA, M.

Synthetic experiments in the histamine series. III. New methods of reducing
4(5)-cyanomethylimidazole to histamine. p.772 (Chemické Listy. Praha. Vol. 46, No. 12,
Dec. 1952)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 6,
June 1955, Uncl.

PLIML, J.

PLIML, J.; PROTIVA, K.

Antihistamine substances. XXVIII. Arsonium analogue of benadryl. p.773
(Chemicke Listy, Praha. Vol. 46, No. 12, Dec 1952)

SC: Monthly List of East European Acquisitions, (EEAL), IC, Vol. 4, No. 6,
June 1955, Uncl.

Br. abo. PL m L, J.

Q11-6 Heterocyclic 3

Reduction of the pyridine ring by formic acid. III. 3-Eicollino. E. L. Baker and J. P. Dimal (Coll. Trav. chim. Tchecosl., 1959, 15, 463—477; *ibid.*, 1960, 16, 71).—1 : 3-Dimethylpyridinium formate is reduced by $\text{H}\cdot\text{CO}\cdot\text{H}$ to the corresponding piperidine derivative along with 1 : 3-dimethyl-1 : 2 : 5 : 6-tetrahydropyridine.

Evidence for the structure of the latter compound is given by ozonolysis, fission by CNBr , and by exhaustive methylation.

Crude 1 : 3-dimethylpyridinium bromide (prep. from 3-methylpyridine with MeBr in MeOH) is heated with fused $\text{H}\cdot\text{CO}\cdot\text{K}$ and $\text{H}\cdot\text{CO}\cdot\text{H}$ to 140° when CO_2 and a little CO is evolved. Heating is continued, with half-hourly additions of $\text{H}\cdot\text{CO}\cdot\text{H}$, until CO_2 evolution ceases (4 hr.) then distillation yields $\text{H}\cdot\text{CO}\cdot\text{H}$, a mixture of bases isolated in 73% yield, and a residue of inorg. salts and polymer material, b.p. $290\text{--}350^\circ$, which is not further investigated. BrH added to the mixed bases dissolved in 48% HBr until absorption ceases, when after some time there is deposited 3 : 4-dibromo-1 : 3-dimethylpiperidine hydrobromide, $\text{C}_7\text{H}_{11}\text{NBr}_2$ (I) m.p. 117° (45% of the mixture). The filtrate is evaporated (vac.) and the residual syrup on neutralisation yields 1 : 3-dimethylpiperidine, b.p. $124\text{--}126^\circ$ (picrate, m.p. 165° (lit. $165\text{--}168^\circ$); methiodide, m.p. 196° (lit. $196\text{--}197^\circ$)), identical with a specimen prepared by the known method. Debromination occurs readily when excess of Zn dust is added in small portions to I in H_2O at $<40^\circ$ followed by alkali; steam-distillation yields 1 : 3-dimethyl-1 : 2 : 5 : 6-tetrahydropyridine, $\text{C}_7\text{H}_{11}\text{N}$ (II), b.p. $157\text{--}158^\circ$, d_4^{20} 0.8540, n_D^{20} 1.4611 (picrate, $\text{C}_7\text{H}_{11}\text{N}\cdot\text{C}_6\text{H}_5\text{O}_7\text{N}_3$, m.p. 107° , methiodide, $\text{C}_7\text{H}_{11}\text{NI}$, m.p. 154°). Ozonolysis of II in aq. HCl yields no cryst. product but the syrup obtained gives the iodoform test indicating the presence of COMe expected from ring-fission between $\text{C}_{(3)}$ and $\text{C}_{(4)}$. Addition of CNBr in Et_2O to II in Et_2O (ice-bath) yields hygroscopic 1 : 1 : 3-trimethyl-1 : 2 : 5 : 6-tetrahydropyridinium bromide (III) (picrate, $\text{C}_{11}\text{H}_{15}\text{O}_7\text{N}_4$, m.p. 213°), and a filtrate which on distillation yields 1-cyano-3-methyl-1 : 2 : 5 : 6-tetrahydropyridine $\text{C}_7\text{H}_{10}\text{N}_2$, b.p. $115/12\text{ mm.}$, d_4^{20} 0.9930, n_D^{20} 1.4925. This on hydrolysis with 12% HCl at the b.p. (2 hr.), evaporation to dryness and neutralisation yields an impure base, b.p. $130\text{--}160^\circ$ from which is isolated 3-methyl-1 : 2 : 5 : 6-tetrahydropyridine picrate, $\text{C}_7\text{H}_{11}\text{N}_2\cdot\text{C}_6\text{H}_5\text{O}_7\text{N}_3$, m.p. $159\text{--}160^\circ$. Addition of Ag_2O to III in H_2O followed by distillation yields 1-dimethylamino-2-methylpenta-2 : 4-diene, $\text{C}_7\text{H}_{11}\text{N}$ (66%), b.p. $144\text{--}146^\circ$ (picrate, $\text{C}_7\text{H}_{11}\text{N}_2\cdot\text{C}_6\text{H}_5\text{O}_7\text{N}_3$, m.p. 133°). I. G. M. CAMPBELL.

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PLIML, I.

1-Dimethylaminopenta-2 : 4-diene and 1-dimethylamino-2-methylpenta-2 : 4-diene. R. Lukes and I. Pliml (Coll. Trav. chim. Tchesost., 1950, 15, 512-519).---Evidence for the structure of the two bases, obtained as the result of exhaustive methylation of tetrahydropyridines, is adduced from chemical and physical properties.

1-Dimethylaminopenta-2 : 4-diene (I) (for prep. see ibid., 1947, 12, 71) in C_6H_6 with maleic anhydride does not give an adduct but only traces of the H maleate of the base, $C_{11}H_{17}O_4N$, m.p. 73° , whilst 1-dimethylamino-2-methylpenta-2 : 4-diene (II) yields the corresponding H maleate, $C_{12}H_{19}O_4N$, m. p. 106° . This is probably the result of the cis relationship of $NMe_2 \cdot CH_2$ and $CH_2 : CH$ with respect to the double bond at $C(2)$ (cf. A., 1943, 11, 289). I in 48% HBr absorbs 1 mol. of Br. yielding a dibromide hydrobromide, $C_7H_{13}NBr_2HBr$, m.p. 131.5° , which is unaffected by further addition of Br, and similarly II yields the analogous dibromide hydrobromide, $C_8H_{15}NBr_2HBr$, m.p. $137-138^\circ$. In the hydrogenation of H in AcOH (H_2 -Pt) at 200° , absorption of 4H occurs in 2.5 hr.; addition of HCl, evaporation to dryness, and neutralisation with NaOH then yields 1-dimethylamino-2-methylpentane, $C_8H_{19}N$ (III), b.p. 134° (picrate, $C_8H_{19}N \cdot C_6H_3O_7N_3$, m.p. 98°). Some hydrogenolysis is shown by the isolation of the picrate of $NHMe_2$, m.p. 154° , during crystallisation of the picrate of III. Kuhn-Roth oxidation of III yields >1 mol. AcOH, indicating the Me is at $C(2)$ rather than at $C(4)$. Comparison of the u.v. absorption spectra and of mol. refractions of I and II gives further evidence for the conjugated system.

I. G. M. CAMPBELL.

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Reduction of the pyridine nucleus with formic acid. III. Reduction of 3-picolone. R. Lukes and J. Fumt. (Tech. Univ. Prague). Chem. Listy 44, 297-300 (1959); cf. Lukes, *ibid.* 41, 415a. 3-Picolone-MeBr (I) with HCO_2H gave 1,4-dimethyl-1,2,5-trimethylpyridine (II), purified by way of the dihydrochloride (III). II gave 1-cyano-3-methyl (IV) and 3-acetyl-1,2,5-trimethylpyridine (V). II MeBr gave $\text{Me}-\text{N}(\text{CH}_3)_2\text{CH}_2\text{CH}(\text{CH}_3)\text{CH}_2\text{CH}_2\text{CH}_3$ (VI) on Hofmann degradation. 3-Picolone (280 g.) and 400 g. MeBr in 1000 ml. MeOH gave 578 g. I on standing overnight and gentle heating. HCO_2K (2530 g.) (fused at 250° before used) 328 ml. anhyd. HCO_2H and 578 g. I were heated under reflux at 140° for 4 hrs. consisting of 96% CO_2 and 4% CO were evolved, and 50 ml. HCO_2H was added each half-hour for 4.5 hrs. When no more CO_2 escaped, the mixt. was distd., yielding 254 g. (75%) bases. The pot residue, alkalinized and steam-distd., gave 36 bases upon steam distn. The bases (257 g.) dissolved in 200 ml. 48% HBr and treated with 205 g. Br deposited 324 g. crystals during the reaction. The mother liquor was treated with 30 g. Br and distd. in vacuo after 24 hrs.; added 12 g. of the HBr soln of III (3,4-dibromo-1,2-dimethylpyridine), total yield, 43%. m. 177° (from EtOH). The mother liquor contained 1,4-dimethylpiperidine, b. 124-5° (perate, m. 165° (from EtOH)); methiodide, m. 196° (from EtOH). III 11Br (332 g.) in 240 ml. water was treated with 100 g. Zn dust with stirring; the temp. rose spontaneously to 40° and distn. of the alk. soln. yielded 98.5 g. II, b. 137-8°, d_4^{20} 0.8990, n_D^{20} 1.4611; methiodide, m. 154°; picrate, m. 107° (from EtOH). Ozonolysis of II (2.4 g.) in 20 ml. dild. HCl soln. gave after boiling 2 hrs. a syrup which showed an iodoform reaction. II (42.3 g.) in 600 ml. EtOH with 21.2 g. BrCN in 400 ml. EtOH cooled with ice gave crystals of III MeBr. Identified as a picrate (m. 213°). The mother liquor on distn. gave IV, b. 116°, d_4^{20} 0.9639, n_D^{20} 1.4925. IV (9.8 g.) was reduced 2 hrs. with 135 ml. 12% HCl. The HCl salt of V extd. with CHCl_3 , the CHCl_3 extd., and the residue alkalinized to give V, b. 139-40° (perate, m. 198-40° (from water)). II MeBr treated with AgO and the hydrazone distd. gave 68% VI, b. 144-6°; perate, m. 133° (from EtOH).

FLIML, JIRI

Czech

CA: 47:11194

with EDUARD KNOBLOCH and MIROSLAV PROCTIVA

Pharm. Biochem. Research Inst., Prague, Czech.

"Antihistamine substances. XXVII. Stereoisomeric benzhydryl-2-(2,6-dimethylpiperidino)ethyl ethers."

Chem. Listy 46, 758-51(1952); cf. ibid. 551; CA 47, 4300a, 7433e, 9928e.

PLIML, J

PROTIVA, M.; EXNER, O.; BOROVIKA, M.; PLIML, J.

Antihistamine substances. Part 22: synthetic antispasmodics. Part 4.
Basic ethers derived from aliphatic carbinols and α -substituted benzyl
alcohols [in English with summary in Russian]. Sbor. Chekh. khim. rab. 18
no.1:86-101 P '53. (MLRA 7:6)

1. Pharmaceutical and Biochemical Research Institute, Prague.
(Antihistamines) (Antispasmodics)

PROTIVA, M.; PLIML, J.

Synthetic analogs of curare alkaloids. Part 1. Quaternary salts of polybasic aliphatic ethers and thioethers [in German with summary in Russian]. Sbor. Chekh. khim. rab. 18 no.6:836-841 D '53. (MLRA 7:6)

1. Nauchno-issledovatel'skiy institut farmatsii i biokhimii, Praga.
(Ethers) (Curare)

PLIMLJ

Synthetic analogs of curare alkaloids. I. Quaternary salts derived from polybasic aliphatic ethers and thioethers. Miroslav Protiva and Jiri Pliml (Farm. biochem. vyzkumy, Prague, Czech.). *Chem. Listy* 47: 408-13 (1953). - Quaternary analogs of "decamethonium iodide" were prepd. from MeI and EtI, resp., and tertiary amines obtained by condensing glycols, $\text{HO}(\text{CH}_2)_n\text{OH}$, $\text{MeN}(\text{CH}_2\text{CH}_2\text{OH})_3$, and $\text{N}(\text{CH}_2\text{CH}_2\text{OH})_3$ (II) with $\text{Me}_3\text{NCH}_2\text{CH}_2\text{I}$ (I) and by the reaction of $\text{I}(\text{CH}_2)_n\text{I}$ (III) with $\text{Me}_3\text{NCH}_2\text{CH}_2\text{SH}$ (IV). To a stirred emulsion of 5.7 g. $(\text{CH}_3)_3\text{N}^+\text{CH}_2\text{CH}_2\text{OH}$ (III) in 50 ml. PhMe was added 12 g. 70% NaNH_2 , the mixt. refluxed 2 hrs., treated with 20.0 g. I in 25 ml. PhMe, refluxing continued 1 hr., the mixt. dild. with 25 ml. H_2O , and the org. layer washed with 10 ml. H_2O , dried, and distd. in vacuo to yield 5.06 g. (21%) $(\text{Et}_3\text{NCH}_2\text{CH}_2\text{OCH}_2)_3$. The reverse procedure, condensing $\text{Me}_3\text{NCH}_2\text{CH}_2\text{ONa}$ with $(\text{CH}_3)_3\text{Br}$, was not successful. A soln. of 2.9 g. Na in 60 ml. EtOH treated with 18.2 g. III, b.m. 128-32°, in 40 ml. EtOH and 10.5 g. II, the mixt. refluxed 3 hrs., the EtOH distd. off, the residue dild. with Et_2O , the NaI filtered off, the filtrate evapd., and the residue distd. gave 13.3 g. (80%) $[\text{Me}_3\text{NCH}_2\text{CH}_2\text{SCH}_2\text{CH}_2]_3$ (IV), b.p. 152-8°. Tertiary amines of the general formula $(\text{Et}_3\text{NCH}_2\text{CH}_2\text{O})_n\text{X}$ (X, yield, b.p./mm., and m.p. of the corresponding ethiodide (all N atoms complexed) given): $(\text{CH}_2)_4$, 21, 164-6°/20, 167-9°; $(\text{CH}_2)_5$, 31, 120°/0.3, 124-6°; $(\text{CH}_2)_6$, 35, 130°/0.3, 185-6°; $(\text{CH}_2)_7$, 38, 134-6°/0.3, 129°; $(\text{CH}_2)_8$, 50, 152°/0.4, 104°; $(\text{CH}_2)_9\text{NMe}(\text{CH}_2)_9$, 58, 152°/0.5, 282°; $(\text{CH}_2)_9\text{N}[(\text{CH}_2)_9\text{O}(\text{CH}_2)_9\text{NEt}_3](\text{CH}_2)_9$, 38, 205°/0.3, 247°. Methiodide of IV m. 224°; ethiodide m. 197°. Also in *Collection Czechoslov. Chem. Commun.* 18, 836-41 (1953) (in German). M. Hudlický

PLIML, JIRI

Synthetic analogs of the curare alkaloids. II. Bis-(tertiary sulfonium salts) and sulfur analogs of succinylcholine. Miroslav Protiva, Jiri Pliml, and Pavla Pínglová (Farm. biochem. věstník, Prague, Czech.). Chem. Listy 47, 1197-1201 (1953); cf. C.A. 49, 199d.—S analogs of decamethonium iodide and of succinylcholine were prepd. none of which showed practical curarelike

activity. Refluxing 9.2 g. Na in 150 ml. EtOH with 22 g. p-HOC₂H₄OH in 75 ml. EtOH and with 50 g. MeSCH₂CH₂Cl 3 hrs. gave 18.1 g. (on purification) o-C₂H₄(OCH₂CH₂SMe)₂, b.p. 155-90°, m. 47-8° (from EtOH); MeI salt, m. 183-4°. Similarly was prepd. p-C₂H₄(OCH₂CH₂SMe)₂ (40%), m. 41-2°; di-MeI salt, m. 155-6°. Refluxing 31 g. MeSCH₂CH₂OH (I), 150 ml. C₂H₅, and 18 g. 70% NaNH₂ 1 hr., adding 35.3 g. Br(CH₂)₂Br and refluxing the mixt. 7 hrs. gave 19.4 g. (50%) MeS(CH₂)₂O(CH₂)₂O(CH₂)₂SMe, b.p. 144°. di-MeI salt, noncryst. Refluxing 5 hrs. a mixt. prepd. from 4.6 g. Na, 250 ml. EtOH, 21.6 g. MeSCH₂CH₂SH (II), and 18.8 g. (BrCH₂)₂Br yielded after dissolving the NaBr in 1 l. H₂O, 22.5 g. (90%) MeS(CH₂)₂S(CH₂)₂S(CH₂)₂Me, m. 64-5° (from AcOEt); di-MeI salt, m. 138°. Similarly were prepd. MeS(CH₂)₂S(CH₂)₂S(CH₂)₂SMe (85%), b.p. 167-9°; MeS(CH₂)₂S(CH₂)₂S(CH₂)₂SMe (98%), m. 30°; and MeS(CH₂)₂S(CH₂)₂S(CH₂)₂SMe (82%), b.p. 180-9°. Dimethiodides of the last 3 compds. were oily. Refluxing a mixt. of 4.6 g. Na, 250 ml. EtOH, 21.6 g. II, and 18.1 g. HOCH₂CH₂Cl, distg. off the EtOH, dilg. the residue with Et₂O, filtering off the NaCl and distg. the ext. gave 23.3 g. (75%) MeS(CH₂)₂S(CH₂)₂OH, b.p. 160°. From the mixt. of 55.4 g. MeNCH₂CH₂OH (b. 13-3°), 20 g. (CH₃CO₂Et) (b. 38°), and 0.15 g. Na was distd. EtOH at 70-80 mm.

1/2 During 1 hr., and the residue fractionated to give 20 g. (97.5%) [Me₂N(CH₂)₂OCOCH₂]₂, b.p. 120°; di-MeI salt, m. 250-1°. Treating 10.5 g. MeNCH₂CH₂SH in 100 ml. C₂H₅ at 10° with 7.75 g. (CH₃COCl)₂ (III) (b.p. 04-6°) in 100 ml. C₂H₅ gave, after sepg. the NaCl and extg. the alkalized soln. with C₂H₅, 7.4 g. (51%) [Me₂N(CH₂)₂SCOOCH₂]₂, b.p. 166-7°; di-MeI salt, m. 107°. Refluxing 1 hr. 20.3 g. I in 100 ml. C₂H₅ with 15.5 g. III gave 21.7 g. (81.5%) [MeS(CH₂)₂OCOCH₂]₂, b.p. 159-61°, dimethiodide, m. 159°. Distg. off the EtOH from the mixt. of 4.6 g. Na, 80 ml. EtOH, and 21.6 g. II, and refluxing the residue with 125 ml. C₂H₅ and 15.5 g. III gave 16.2 g. (51%) [MeS(CH₂)₂SCOOCH₂]₂, b.p. 198° (dimethiodide, oily). Treating 3.6 g. (CH₃OH)₂ in 10 ml. C₂H₅N with 16 g. MeSCH₂CH₂COCl (IV) (b.p. 70°), gave 11.3 g. (74%) [MeS(CH₂)₂CO₂CH₃]₂, b.p. 150°. Refluxing 1 hr. the mixt. of 4.45 g. (CH₃SH)₂ (b.p. 78°), 13.1 g. IV, and 50 ml. C₂H₅ yielded 7.2 g. (51%) [MeS(CH₂)₂COSCH₃]₂, b.p. 205°. The methiodides were prepd. in Me₂CO, C₂H₅, EtOH, or without solvent, and were crystd. from EtOH or dil. EtOH. III. Pyridine derivatives of pharmacological interest. 9. Quaternary salts of glycol diesters of monocarboxylic acids of the pyridine and piperidine series. Jiri Pliml and Miroslav Protiva. Ibid. 1204-6; cf. C.A. 49, 337d.—Glycol esters of pyridinemono-carboxylic acid were prepd. and treated with MeI to give the corresponding dimethiodides. Picolinic chloride prepd. by refluxing 15 min. 14.6 g. picolinic acid in 1250 ml. C₂H₅ with 14 ml. SOCl₂, heated 2 hrs. with 8.5 g. HO(CH₂)₂OH gave, after treatment with 6.8 g. NaHCO₃ in 120 ml. H₂O, 1.1 g. tetramethylene dipicolinate, m. 81-2° (from H₂O). Most part of the starting acid was recovered. Refluxing 37 g. nicotinic acid 2 hrs. with 180 ml. SOCl₂, evapg. the

2/2 *MIROSLAV PROTIVA, et al*

unchanged SOCl_2 , washing the cryst. residue with C_6H_6 , and refluxing with 6.3 g. (CH_3OH) (I) in 100 ml. C_6H_6 gave, after alkalization with KHCO_3 , 22.3 g. (82%) ethylene dinitrilotrile, m. 126° (from EtOH); di-Mel salt, m. 208° . Similar treatment of 37 g. isonicotinic acid (the HCl salt of the chloride did not melt below 200°) with 6.3 g. I gave 19.9 g. (72%) ethylene diisonicotinates, m. 175° (from EtOH); di-Mel salt (II), m. 213° (decomp.). Hydrogenation of II in EtOH over PtO_2 gave 88% di-HI salt, m. 173° , of ethylene bis(*N*-methylisopicolinate), b.p. 176° (insol. in Et_2O); bis(methiodide), m. $287-8^\circ$. M. Hudlicky

PLIML, JIRI

✓ Synthesis analogs of the curare alkaloids. V. Bis-
(quaternary salts) derived from *n*,*n*-diphenyl-*n*,*n*-diamino-
alkanes. (Miroslav Proton, Miroslav Borovick, and Jiri
Pliml (Vyzkumny ústav farm. biochem., Prague). *Chem.
abstr.* 49, 1892-*n* (1955); cf. *C.A.B.* 49, 2066f). The Friedel-
Crafts synthesis from C_6H_5 and dicarboxylic chlorides gave
o,*o*-diketones $Bz(CH_2)_nBz$ (I, *n* = 2); (II, *n* = 4); (III,
n = 6); and (IV, *n* = 8), which were transformed to the
corresponding diamines (V, *n* = 4); (VI, *n* = 6); and (VII,
n = 8), whose hydrogenation yielded diamines $PhCH_2-$
 $(NH_2)(CH_2)_nCH_2NH_2$ (VIII, *n* = 4); (IX, *n* = 6); and
(X, *n* = 8). VIII and MeI gave a bis(quaternary me-
thiodide). Since the same procedure failed for IX and X, an-
other method was chosen for the prepn. of the quaternary
methiodides: I, II, and IV were reduced with $LiAlH_4$ to
diols, $PhCH(OH)(CH_2)_nCH(OH)Ph$ (XI, XII, and XIII for
n = 2, 4, and 8), and these transformed with $SOCl_2$ to the
corresponding chlorides, $PhCHCl(CH_2)_nCHClPh$ (XIV, XV,
and XVI for *n* = 2, 4, and 8), which with Me_3NH yielded
bis(dimethylamines), $PhCH(NMe_2)(CH_2)_nCH(NMe_2)Ph$
(XVII, XVIII, and XIX for *n* = 2, 4, and 8), methylated
with MeI to bis(quaternary salts), $PhCH(NMe_2)(CH_2)_nCH-$
 $(NMe_2)PhI$, which are either ineffective or less effective
than the decarboxonium bromide. I-IV (yields in %, m.p.
from EtOH): 65, 145-6°; 72, 106-7°; very good yield,
88°, 75%; 89-91°. V-VII were prepd. from II-IV with
 NH_4OH , HCl and AcOK in aq. EtOH (yields in %, m.p.):
91°, 223-3° (from AcOH); —, 185-6° (from dioxane);
and 88%, 110-21° (from EtOH). Hydrogenation of V-VII

(over)

Synthetic Analogs

over Raney Ni in dioxane at 100° and 150 atm. initial pressure yielded 65% VIII, b.p. 180-2° (d-HCl salt, m. 330° (from EtOH-Et₂O)), 72% IX, b.p. 182-220° (diformyl deriv., m. 128° (from EtOH)), and 49% X, b.p. 215-25° (decomps.) (diformyl deriv., m. 204-6° (from aq. EtOH)); diformyl deriv., m. 218° (from EtOH), resp. Reduction of I, II, and IV with LiAlH₄ in Et₂O, respectively in Et₂O-C₂H₅, yielded 75% XI, b.p. 64-6° (from aq. EtOH), 87% XII, m. 162-3° (from MeOH), and 84% XIII, m. 70-1° (from C₂H₅ pent. ether), resp. The above coincide with those of XI-XIII prepd. from I, II, and IV by the Meerwein-Ponndorf reduction. Refluxing XI-XIII 4 hrs. with SOCl₂ in C₂H₅ gave 53% partly cryst. XIV (XIVa), m. 103-4° (from EtOH); only XV, and only XVI. Treating the dichlorides with a 30% soln. of Me₂NH in MeOH at room temp., heating the mixt. 4-6 hrs. at 100° in an autoclave, evap. the solvent, alkalinizing the residue with NaOH, and extg. with Et₂O in C₂H₅ yielded: 40% XVII, b.p. 142-4° (dimethiodide, m. 210-20° (from EtOH-Et₂O)); XIVa gave 39% XVII, b.p. 147-8° (dimethiodide, m. 177-8°); 70% XVIII, b.p. 170-0° (d-HCl salt, m. 275-6° (from EtOH-Me₂CO)); dimethiodide, m. 227-3° (from aq. EtOH), also prepd. by refluxing VIII with MeI, NaOH, and MeOH 4 hrs.; and 51% XIX, b.p. 198-201° (d-HCl salt, m. 182° (from EtOH)).

M. Hudlicky

PLIMLS, J.

Synthetic experiments in the histamine series. IV.
4(5)-(2-benzylaminoethyl)imidazole. J. Plimls and M.
Prošva (Farm. biochem. výzkumny ústav, Prague, Czech.).
Chem. Listy 47, 1574-5 (1953); cf. C.A. 48, 13787g. -- Reduc-
tive alkylation of histamine (I) (1.1 g.) with BzH (1.06 g.)
in 15 ml. EtOH; over 0.2 g. PtO₂ in 10 ml. EtOH gave, on
repeated hydrogenation, *N*-benzylhistamine; dipicrate, m.
191-3°; di-HCl salt, m. 220-2°. Similar alkylation with
PhH was unsuccessful. *N*-Benzylidenethistamine, m.
142-3° (mpd. by condensing BzPh with I, did not undergo
hydrogenation over PtO₂ at 20 or 60°, nor with Raney Ni at
170° and 180 atm. M. Hudlický.

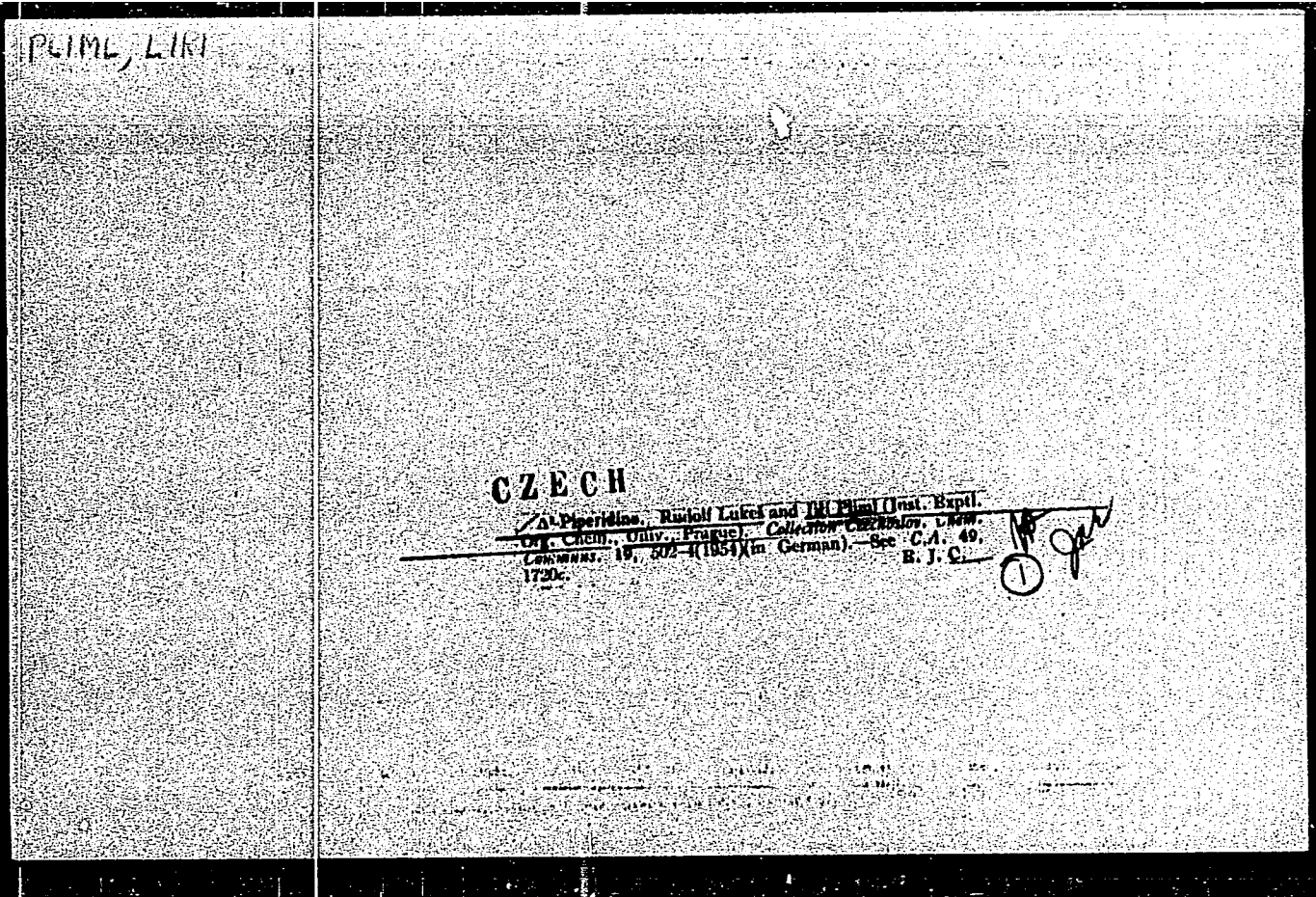
PROTIVA, M.; PLIML, J.

Antihistamine substances. Part 28. The arsonium analogue of benadryl [in English with summary in Russian]. Sbor.Chekh.khim.rab. 19 no.1:182-183 P '54. (MLRA 7:6)

1. Pharmaceutical and Biochemical Research Institute, Prague.
(Antihistamines) (Arsonium compounds) (Diphenhydramine)

Pliml, J.

Synthetic experiments in the histamine series. III.
New methods of the reduction of 4(5)-(cyanomethyl)imidazole to histamine. J. Pliml and M. Protiva (Pharm. Biochem. Research Inst., Prague). Collection Czechoslov. Chem. Commun. 19: 181-6 (1954) (in English). See C.A. 47: 11182d.
R. J. C.



~~Miroslav~~
Pliml, Jiri

CZECH

Antihistaminic substances. XXXI. Contribution to the mechanism of the antihistaminic activity. Simple benzylammonium and benzhydrylammonium salts. ~~Miroslav Protiva, Jiri O. Jilek, Otto Exner, Milos Horavsky, Jan Pliml, Vladislav Simak, and Zdenek Sedivy (Pharm. Res. Chem. Research Inst., Prague). Collection Czechoslov. Chem. Commun. 19, 732-32 (1954) (in English).—See C.A. 49, 248c. XXV. Kinetics of the hydrolysis of antihistaminics of the benzhydryl type. Edvard Kucloch, Frantisek Macha, Otto Exner, and Miroslav Protiva. Ibid. 1950-51.—See C.A. 46, 2425c. E. J. C.~~

PLM, JIRI

Δ^2 -Piperidine. Rudolf Laker and Jiri Piliml (Vysoká škola chem., Prague, Czech.). *Chem. Listy* 48, 49-51 (1954).—*N*-Methyl- Δ^2 -piperidine (I) and BrCN gave, in addn. to *N,N*-dimethyl- Δ^2 -piperidinium bromide (II), *N*-cyano- Δ^2 -piperidine (III) the hydrolysis of which yielded Δ^2 -piperidine (IV). A soln. of 30 g. I in 500 ml. Et₂O mixed with 17 g. BrCN in 650 ml. Et₂O under ice-cooling deposited crystals of II (picrate, m. 270°, from H₂O). The ether soln. after the removal of II gave, on distn., 9.2 g. (55%) III, b. 106-8°. Refluxing 8.9 g. III 2 hrs. with 50 ml. 1:2 HCl, evapg. the soln. *in vacuo*, extg. the dry residue with 50 ml. CHCl₃, and evapg. the CHCl₃ ext. gave 8.8 g. (69%) IV. HCl, m. 188-9° (from EtOH-Et₂O); *H*₂PO₄ salt, m. 187-8° (decompn.); picrate, m. 100° (from H₂O). IV b. 133.5°, *d*₄ 0.9153, *n*_D 1.4830. M. Hudlický

PL 1 ml, J.

Antihistamine substances. XXXIV. A new type of homologous arylmethyl antihistamines. Otto Exner, III, Placid, and Miroslav Procházka (Vestník české farm. chem. společnosti, Czech.). *Chem. Listy* 48, 95-9 (1954). C.A. 49, 2496. Refracting 7.9 g. PhCHCH_2OH , 5.4 g. $\text{Me}_2\text{NCH}_2\text{CH}_2\text{Cl}$ and 3 g. 70% NaNH_2 6 hrs. in 40 ml. C_6H_6 gave 7.8 g. (70%) $\text{PhCHCH}_2\text{OCH}_2\text{CH}_2\text{NMe}_2$ b. 143-4° (after purification). $\text{PhCHCH}_2\text{CO}_2\text{H}$ (60 g.) in 760 ml. C_6H_6 treated 2 hrs. with 100 g. AlCl_3 and dry HCl gave, after decompn. with 600 ml. ice H_2O and 600 ml. dil. HCl (1:1), 50 g. (56%) $\text{PhCHCH}_2\text{CO}_2\text{H}$ (l). m. 163°. Reduction of 22.0 g. I with 4.8 g. LiAlH_4 in Et_2O yielded, after decompn. with 10% H_2SO_4 , 17 g. (80%) PhCHCH_2OH . This compd. was transformed in the usual way to $\text{PhCHCH}_2\text{CH}_2\text{OCH}_2\text{CH}_2\text{NMe}_2$ b. 163-4° (yield 78%). HCl salt, m. 122° (from $\text{Et}_2\text{O-Me}_2\text{CO}$). $\text{PhCHCH}_2\text{CO}_2\text{Cl}$ (20.7 g.) in 300 ml. Et_2O added to 21.6 g. $\text{C}_6\text{H}_5\text{N}$ in 300 ml. Et_2O gave overnight, 20.7 g. (58%) $\text{PhCHCH}_2\text{CON}$. Refracting 12.5 g. II and 2 g. LiAlH_4 in 600 ml. Et_2O 24 hrs. (with stirring), decompn. the mixt. with 600 ml. H_2O and 100 ml. 3N H_2SO_4 , alkalinizing the aq. layer with 40% KOH , and extg. the bases with Et_2O yielded 7.2 g. (50%) $\text{PhCHCH}_2\text{NC}_6\text{H}_5$ b. 167-70°, b.p. 157-0°. HCl salt, m. 140°. $(\text{PhCHCH}_2\text{CO})_2$ b. 160°, was transformed to $(\text{PhCHCH}_2\text{C:NO})_2$ m. 123-3° which (28 g.) hydrogenated in 150 ml. EtOH over 6 g. Raney Ni 2 hrs. at 100° and 115 atm. initial pressure yielded 22.2 g. (85%) $(\text{PhCHCH}_2\text{CHNH}_2)_2$ m. 44-6°, b.p. 130-1°. HCl salt, m. 168-9°. None of the prepd. compds. was effective as antihistamine. M. Hudlický

P. J. M. J. R.

P. J. M. J. R.

CZECH

Reduction of pyridine bases with formic acid. VI. Reduction of methylbetaines of pyridine monocarboxylic acids.

Rudolf Luket, Josef Hrb, Jit Plim, and Václav Štěp (Vysoká škola Chem., František Štěp. Chem. Listy 48, 580-9 (1954); Collection Czechoslov. Chem. Commun. 19, 940-52 (1954) (in German); *Ch. U.S.A.* 49, 823g. Reduction with HCO_2H of homarine (I) (Me betaine of picolinic acid), and trigonelline (II) (Me betaine of nicotinic acid) gave a mixt. of $\text{MeN}(\text{CH}_3)\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_3$ (III) and *N*-methyl

piperidine (IV), whereas the reduction of the Me betaine of isonicotinic acid (V) yielded $\text{MeN}(\text{CH}_3)\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_3$ (VI).

The different behavior of I and II and of V is explained by the relation of I and II to α - and β -oxo acids which easily suffer decarboxylation whereas V, corresponding to a γ -keto acid, is stable. Refluxing 4 g. I, 10 g. 85% HCO_2H , and 15 g. anhyd. HCO_2K 6 hrs. at 145°, distg. the volatile bases, steam distg. the alkalized residue, acidifying the distillate with HBr , and evapg. the soln. in vacuo yielded 2.1 g. (40%) of a mixt. of HBr salts which, treated in the min. amt. of 48% HBr with Br gave, after vacuum evapg., 2.7 g. of a mixt. from which was isolated by systematic crystn. from EtOH 1 g. $\text{MeNCH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_3$ (VII), m. 185°, the debromination of which

with Zn gave III (picrate, m. 195.5-200°), and IV (picrate, m. 220-1°). Heating 38.5 g. II, 200 ml. 90% HCO_2H , and 685 g. HCO_2K 6 hrs. at 160° (an addnl. 150 g. HCO_2H was added during the reduction), distg. off the volatile

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compds. up to 200° (m.p. temp.), steam dist. the alkalized residue, neutralizing the distillate with 40.5 g. 48% HBr (70% yield of bases), treating the soln. of the salts with 10 ml. HBr and 25 g. Br, and evapng. the soln. to res. gave a lump which crystals from EtOH yielded 16 g. VII. A noncryst. mother liquor contg. IV. HBr. Treating 15 g. VII in 150 ml. H₂O portionwise with 4.6 g. Zn dust, alkalizing, and steam distg. the mixt. gave III. b. 100-110° (picrate, m. 201°). From the mother liquors stripped of EtOH and alkalized under ice-cooling was obtained 13.5 g. (25%) IV. b. 101-6°; picrate, m. 224°. Reducing 27 g. V 25 hrs. at 150° with 60 g. 80% HCO₂H and 81 g. HCO₂K, acidifying the mixt. with concd. HCl, removing the resd. KCl, evapng. the soln. to dryness, and dehydrating it by the distn. with CaH₂ gave, after crystn. from EtOH, 11 g. (31%) VI. HCl, m. 223.5-4.5°. Treating the crude dry residue with 100 ml. EtOH, satg. the soln. with HCl, and refluxing the mixt. 4 hrs. yielded 25% of the Et ester of VI, b. 121.5-22° (picrate, m. 177.5-8.5°). Hydrolysis of VI, m. 144-6°; picrate of VI, (from the VI.HCl and Na picrate), m. 101-3°. Transforming the pure picrate of the Et ester of VI to the HCl salt and removing the Cl ions gave the hydrate of VI, m. 172.5° (from tetrahydrofuran and from 3:1 MeCO-EtOH). M. Hudlicky

R. J. Jurek
2/2

PLIML, J.

CZECH

Synthetic analogs of curare alkaloids. IV. Quaternary salts of basic esters of pyridine-2-carboxylic acids. III. Pliml (Výzkumný ústav farm. biochem. Prague). *Chem. Zvesti* 48, 880-72 (1984); cf. *C.A.* 49, 10331. As pyridine analogs of the quaternary salts of basic esters of benzene-1-carboxylic acids possessing curare activity, bis(ethyldikes) of β -diethylaminoethyl esters of quinicinic (I), dipicolinic (II), and lutidine (III) acids were prepd. Adding 14g. powd. 8-hydroxyquinoline to 1100 ml. HNO_3 (d. 1.4) at 30-40°, heating the mixt. 6-8 hrs. on the steam bath, and evapg. the clear soln. gave 102 g. I, m. 188° and 225°. Refluxing a mixt. of 53.5 g. 2,0-lutidine 2-3 hrs. with a soln. of 321 g. KMnO_4 in 2800 ml. H_2O , filtering off the MnO_2 , evapg. the filtrate, and recrystg. the residue from dil. HCl 1:4 (with C) yielded 43.5 g. $\text{C}_8\text{H}_8\text{NO}_4 \cdot \text{C}_8\text{H}_8\text{NO}_4 \cdot \text{K}_2\text{SO}_4$, which was transformed, by treatment with 10 ml. HCl and 10 ml. H_2O , to 23 g. II, m. 246° (decompn.). Com. 2,4-lutidine (contg. some 2,5-lutidine) (b.p. 157.5-8°) (150 g.) was heated 4 hrs. on the steam bath with 900 g. KMnO_4 in 14 l. H_2O . The filtrate after the removal of MnO_2 was evapd. *in vacuo*, mixed with 1 l. MeOH , evapd., refluxed with 650 ml. H_2SO_4 and 160 ml. MeOH , poured onto 3 kg. ice, neutralized with 870 g. Na_2CO_3 , the soln. extd. with 1600 ml. CHCl_3 , and the ext. evapd. to give 8.5 g. *Me. isocinchonine*, m. 161.5° (from MeOH), and, by fractionation of the mother liquors, 47 g. of a fraction b.p. 125-40°, yielding 27 g. *Me ester* of III, m. 68-9° (from petr. ether). Esterification of I gave the *Me ester*, m. 57°; esterification of 13.4 g. II with 250 ml. EtOH and 11Cl yielded, after alkalization and ether extn., 10 g. (60%) the *Et ester* of II, m. 44-5° (from C_6H_6). Transesterification of the esters of I-III by

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distg. 0.4 mole of $\text{Et}_3\text{NCH}_2\text{CH}_2\text{OH}$, 0.1 mole of the ester of I-III, and 0.1 g. Na. gave approx. 60% yields of β -diethylaminoethyl esters of I-III which treated with Et_3N in Me_2CO soln. 3 days yielded 80-100% bis(ethylolides). β -Diethylaminomethyl esters of I, II, and III, and the corresponding etholides are listed: I, b_{p} 210°, m. 172-4° [tris(ethylolide); m. 270° (decomp.)]; II, b_{p} 190°, m. 205-6°; III, b_{p} 180°, m. 264°.

M. Hudlický

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RESEARCH GRADUATES of

[illegible]

CH₃CH₂NMe₂Br (III). The action of Ag₂O upon III and

[illegible]
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Pliml, Sr:

Chem
 Reduction of pyridine bases with formic acid, VIII.
 Reduction of *N*-(ethoxycarbonylalkyl)pyridinium formates.
 Rudolf Lunkel and Jiri Pliml (Czech Acad. Sci., Prague).
 Chem. Listy 50, 687-688 (1950); cf. C.A. 50, 9402a.
 Quaternary salts prepd. by addn. of pyridine (I) to Et esters
 of aliphatic bromo acids yielded on treatment with HCO₂H
 a mixt. of 1-alkyl-Δ¹-piperidine and 1-alkylpiperidine, and in
 some cases recovered I. A mixt. of 112 g. *N*-(ethoxycar-
 bonylmethyl)pyridinium bromide, 336 g. HCO₂K, and 157 g.
 98-100% HCO₂H was heated to 100-155° and the mixt.
 distd. with water, alkalinized, and steam distd. yielding equal
 amts. of 1-methylpiperidine and 1-methyl-Δ¹-piperidine,
 characterized as 1-methyl-3,4-dibromopiperidine-HBr, m.
 185°. Analogous treatment of 93 g. *N*-(α-ethoxycarbonyl-
 ethyl)pyridinium bromide (prepd. from MeCHBrCO₂Et
 and I) gave 50% 1-ethyl-Δ¹-piperidine, characterized as 1-
 ethyl-3,4-dibromopiperidine-HBr, m. 164-5° (from EtOH), d
 besides 1-ethylpiperidine-HCl, m. 225° (from EtOH).
 Reduction of *N*-(β-ethoxycarbonyl)pyridinium bromide
 (m. 70-2°, obtained by treating 78 g. I with 178 g. BrCH₂-
 CH₂CO₂Et) yielded I as the main product besides CH₃-
 CH₂CO₂Et. Pyridine was also obtained from the reduction
 of betaine of γ-(*N*-pyridinium)butyric acid, m. 98-9°, which
 was prepd. by treating 63.5 g. Br(CH₂)₃CO₂Et (II) with 25.7
 g. I and converting the resulting bromide to the betaine with
 Ag₂O. II was prepd. by a new method involving treat-
 ment of 69.5 g. γ-butyrolactone with 200 g. PBr₃ and 118 g.
 Br under cooling, followed by fractional distn., yielding
 65.3 g. II, b. 198-200°.

L. J. Urbanek

PLIML, J.

PLIML, J. Reduction of pyridine bases with formic acid VIII. Reduction of N-(ethoxycarbonylalkyl)-pyridinium formates. p. 557. Vol. 50, no. 4, Apr. 1956. Praha, Czechoslovakia.

SOURCE: East European Accessions List (EEAL) Vol. 6, No. 4--April 1957

Pliml, J.
 CZECHO-SLOVAKIA/Organic Chemistry. Synthetic Organic Chemistry.
 Abs Jour: Ref Zhur-Khimiya, No 6, 1957, 19196

E-2

Author : Lukosh R. Pliml J.
 Inst :
 Title : Reduction of Pyridine Bases by Formic Acid. Viii. Reduc-

tion of Formates N-(ethoxycarbonylalkyl)-pyridino.
 Orig Pub: Chem. listy, 1956, 50, No 4, 557-560.

Abstract: Described is the reduction of the following quarternary salts (QS) by means of HCOOH(I) in the presence of HCOOK (II): brominated N-(ethoxycarbonylmethyl)-(III); N-(ethoxycarbonyloethyl)-(IV); N-(ethoxycarbonylpropyl)-pyridine (VI) and betaine (V); N-(ethoxycarbonylpropyl)+ pyridine (VI) and betaine γ -(N-pyridine)-butyric acid (VII). QS are obtained by coupling pyridine (VIII) to the corresponding brominated esters of carboxylic acids. From III and IV is formed a mixture of tetrahydro- and hexahydro-bases in the ratio

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Abs Jour: Ref Zhur-Khimiya, No 6, 1957, 19196

1:1 with a general yield of 65%: 1-methyl- Δ -pyperidino (IX) and 1-methylpyperidino (X), and also 1-ethyl- Δ^3 -pyperidino (XI) and 1-ethylpyperidino (XII) correspondingly, while V is split into ethyl ester of acrylic acid (XIII) and VIII with a yield of 74%. At the interaction with VII it was possible to separate only VIII and γ -butyrolactone (XIV). 79.1 g. of VIII and 200 g. $\text{BrCH}_2\text{COOC}_2\text{H}_5$ in 500 cc C_6H_6 ($\sim 20^\circ$, 14 days) produce III, yielding* bromous α -bromopropionyl (see Bardan D., Bull. Soc. Chim. France, 1931, 4, 47, 1426) ethyl ester of α -bromopropionic acid (XV) is obtained yield 77%, b.p. $48-50^\circ/9$ mm. From an equimolecular mixture of VIII and XV ($\sim 20^\circ$, 14 days) is obtained IV; picrate, m.p. 88° (from water). From 78 g. VIII and 178 g. $\text{BrCH}_2\text{CH}_2\text{COOC}_2\text{H}_5$ ($\sim 20^\circ$, 3 days) is obtained V, yield 73%, m.p. $70-72^\circ$ (from acetone). By the addition in drops of 118 g. Br_2 , heat-

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CHECHO-SLOVAKIA/Organic Chemistry. Synthetic Organic Chemistry.

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Abs Jour: Ref Zhur-Khimiya, No 6, 1957, 19196.

ing ($\sim 100^\circ$, 1 hour), and fractional distillation is obtained a fraction with a b.p. $91-100^\circ/14$ mm. which after the addition of alcohol in drops, heating 2 hours and pouring into water yields ethyl ester γ -bromobutyric acid (XVI), 45%, b.p. $198-200^\circ$. From 63.5 g. XVI and 25.7 g. VIII ($\sim 20^\circ$, 14 days) is obtained a hygroscopic VI, which by the action of Ag_2O is transformed into VII $2\text{H}_2\text{O}$, m.p. $98-99^\circ$ (from alcohol or alc.-acetone). From 112 g. III and 336 g. II (melted at 250°) in 187 g. 98-100% I gradually distilling of I and HCOOC_2H_5 up to 140° , and the precipitate heated at 155° 7 hours, diluted with water, 300 cc 7.15N KHO added, and distilled with steam. X (picrate, m.p. 224° ; hydrobromide, m.p. 184°) and IX (hydrobromide 1-methyl-3,4-dibromopyperidino, m.p. 185°). Analogically from 93 g. IV, 300 g. of melted II and 150 cc 98-100% I at 162° were obtained XI, hydrobromide 1-ethyl-3,4-di-

Card : 3/4

CZECHOSLOVAKIA / Organic Chemistry. Natural Compounds G-3
and Their Synthetic Analogs.

Abs Jour: Ref Zhur-Khimiya, No 23, 1958, 77835.

Author : Pliml, J., Borovicka, M., and Protiva, M. and
Protiva, M., Borovicka, B., Cimlér, L., and Sedivy, Z.

Inst : Not given.

Title : Synthetic Analogs of the Curare Alkaloid. VI.
Some Notes on the Preparation of Tris-2-diethyl-
aminoethyl) Ether of Pyrogallol. VII. Two New
Models for Tubocurare and Two Bis-quaternary
Ammonium Salts.

Orig Pub: Scll Czech Chem Commun, 23, No 4, 704-711, 712-719
(1958) (in German with a Russian summary).

Abstract: See RZhKhim, 1957, 51218; 1958, 4777.

Card 1/1

46

COUNTRY : Czechoslovakia
CATEGORY :
ABS. JOUR. : RENAISS., No. 1959, No. 4602.
AUTHOR : Lukes, R.: ~~Pril., 5.~~
INSTR. :
TITLE : On the question of the origin of the
Chlorine with Perchlorine.
ORIG. PUB. : Collect. Czechosl. Chem. Commun., 1959, No. 4, 1355-1358.
ABSTRACT : See Abstract, 1959, No. 22, 38155.

QAFD:

PLIML, J.

CZECHOSLOVAKIA/Organic Chemistry. Organic Synthesis.

Obs Jour: Ref Zhur-Khin., No 11, 1959, 38656.

Author : Lukes, R. and Pliml, J.

Inst :

Title : The Reduction of Pyridine Bases by Formic Acid. X.
The Reduction of the Formate of 1-methyl-4-picolinium
and the Thermal Cleavage of 1,1,3-trimethyl-2-methylene-
 Δ^3 -pyrrolinium Hydroxide and Acetate.

Orig Pub: Chem Listy, 52, No 4, 663-667 (1958) (in Czech)

Abstract: The reduction of the bromomethylate of gamma-picoline yields only 1-methyl- Δ^3 -4-pipecoline (I). No hexahydro base could be found. The exhaustive methylation of I according to Hofmann gives 1-dimethylamino-3-methyl-2,4-pentadiene (II) which adds 1 mol Br to give a pro-

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When the acetate of IV is distilled with methyl acetate, 1,2,3-trimethylpyrrole is formed. 93 gms of 4-picoline are treated with 156 gms of the dihydrate of oxalic acid and 250 ml alcohol (with refluxing). When the

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liquor is allowed to cool, 157 gms of the oxalate, mp 138-139°, are obtained; evaporated, the free liquor yields 34 gms of the substance from which the free base is separated, yield 93%, bp 144°, picrate mp 167-

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CZECHOSLOVAKI./Organic Chemistry. Organic Syntheses.

G

Abs Jour: Ref Zhur-Khin., No 11, 1959, 38656.

-168° /original unclear/. The base (93 gms) [sic] is allowed to stand no more than 1 day, after which it is treated with 200 gms CH_3Br in 1.5 liter C_6H_6 ; steam distillation and evaporation gives the hygroscopic quaternary bromide which is heated (200°, 20 hrs) with 200 gms 95% HCOOH and 600 gms HCOOK ; distillation followed by alkalization of the distillate gives I, yield 82%, bp 135-136°, n_D^{20} 1.4552, d_4^{20} 0.8386; the product obtained rapidly turns brown and decomposes; picrate derivative mp 146-147° (from alc), iodomethylate mp 245-246°; the hydrobromide of the dibromide, prepared by treatment with Br_2 in HBr (acid), has an mp of 175° (from alc). When a mixture of I and Ag_2O in water is allowed to stand 1 hr and the clear solution is distilled

Card : 3/5

CZECHOSLOVAKIA/Organic Chemistry. Organic Synthesis.

G

Abs Jour: Ref Zhur-Khin., No 11, 1959, 38655.

Author : Lukes, R. and Pliml, J.

Inst :

Title : On the Gomberg Reaction of 3-Pyridinediazonium Chloride with Pyridine.

Orig Pub: Chem Listy, 52, No 4, 759-762 (1958) (in Czech)

Abstract: 3,3'-dipyridyl (I) and 2,3'-dipyridyl (II) have been isolated from the reaction mixture after the reaction of 3-pyridinediazonium chloride with C_5H_5N ; 3,4-dipyridyl could not be obtained. 3-amino-pyridine is diazotized in dil (1 : 1) HCl with 25% $NaNO_2$ solution at 0-3° and the resulting solution is poured into C_5H_5N at a temperature under 50°;

Card : 1/4

CZECHOSLOVAKIA/Organic Chemistry. Organic Synthesis.

Abs Jour: Ref Zhur-Khin., No 11, 1959, 38655.

APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R001341310006-2"

After 2 hrs the solution is heated to 90° and made alkaline with KOH; distillation of the resulting solution gives a mixture of dipyridyls, yield 39%, bp 154-164°/11 mm, which are converted to the iodo-methylates; the bis-iodomethylate of I is obtained in 18.5% yield. The mother liquor yields the picrate of 1-methyl-II (47.5%). The separation by recrystallization of the picrates, hydrochlorides, or hydrobromides was less successful. Authentic I, bp 160°/9 mm, is obtained by the decarboxylation of 3,3'-dipyridyldicarboxylic-2,2' acid under vacuum; dipicrate derivative mp 232° (from water), dihydrochloride derivative mp 290-295° (from alc), dihydrobromide distills at 300° and decomposes at 333° without melting

Card : 2/4

G-36

CZECHOSLOVAKIA/Organic Chemistry. Organic Synthesis.

Abs Jour: Ref Zhur-Khin., No 11, 1959, 38655.

G

(from alc), bis-iodomethylate mp 306° (from aqueous alc, 9 : 1), monoiodomethylate mp 168-169° (from alc), picrate of 1-methyl-II mp 168-169°

CZECHOSLOVAKIA

FLIML, J.; SORM, F.

Institute of Organic Chemistry and Biochemistry,
Czechoslovak Academy of Sciences, Prague - (for both).

Prague, Collection of Czechoslovak Chemical Communi-
cations, No 11, November 1965, pp 3744-3751.

APPROVED FOR RELEASE: 08/23/2000
acid components and their analogues. Part 72:
Synthesis of maleic acid hydrazide and 2,4-diox-
xyriboside."

CIA-RDP86-00513R001341310006-2"

PLIML, J.; SORM, F.

Synthesis of a 2-deoxy-D-ribofuranosyl-5-azacytosine. Coll
Cz Chem 29 no.10:2576-2578 O '64.

1. Institute of Organic Chemistry and Biochemistry, Czechoslovak
Academy of Sciences, Prague.

~~PLIML, J.~~; KARA, J.; SORM, F.

Nucleic acid components and their analogs. Pt. 47. Coll
Cz Chem 29 no. 3:840-842 Mr '64.

1. Institute of Organic Chemistry and Biochemistry, Czechoslovak Academy of Sciences, Prague.

PLIML, J.; PRYSTAS, M.; SORN, F.

Nucleic acid components and their analogs. Pts.39-40.
Coll Cz Chem 28 no.10:2588-2604 0 '63.

1. Institute of Organic Chemistry and Biochemistry, Czechoslovak
Academy of Sciences. Prague.

PLIML, J.

CSSR

PLIML, J.; SORM, F.

Institute of Organic Chemistry and Biochemistry, Czechoslovak Academy of
Science, Prague

Prague, Collection of Czechoslovak Chemical Communications, No 2, 1963,
pp 546-550

"Nucleic Acids Components and Their Analogues. XXVIII.
Synthesis of 6-AZA -2'-Deoxyctidine"

PLIML, J.

"Organic reactions," edited by Arthur C. Cope. Reviewed by J. Pliml.
Chem Listy 57 no.2:181-182 F '63.

PLIML, J.; SORM, F.

Nucleic acid components and their analogues. Pt.28.
Coll Cz Chem 28 no.2:546-550 F '63.

1. Institute of Organic Chemistry and Biochemistry,
Czechoslovak Academy of Sciences, Prague.

PLIML, J.

CZECHOSLOVAKIA

PLIML, J.; SORM, F.

CSSR

Institute of Organic Chemistry and Biochemistry, Czechoslovak Academy of
Science, Prague

Prague, Collection of Czechoslovak Chemical Communications, No 2, 1963,
pp 546-550

"Nucleic Acids Components and Their Analogues. XXVIII.
Synthesis of 6-AZA -2'-Deoxyctidine"

PLIML, J.

On 2,5-dimethyl-6:7-benzomorphan. Coll Cz Chem 26 no.12:3039-3043 D '61.

1. Laboratorium für heterocyclische Verbindungen, Tschechoslowakische Akademie der Wissenschaften, Prag.

LUKES, R.[deceased]; PLIML, J.

Pyrroles, pyrrolines, and pyrrolidines. I. Use of the formic acid-potassium formate reagent in the preparation of Δ^3 -pyrrolines and pyrrolidines and a novel dequaternization procedure in the preparation of pyrroles and Δ^2 -pyrrolines. Coll Cz chem 26 no.2:471-477 F '61. (EEAI 10:9)

1. Laboratory of Heterocyclic Compounds, Czechoslovak Academy of Science, Prague.

(Pyrrole)	(Pyrroline)	(Pyrrolidine)	(Formic acid)
	(Potassium formate)		

LUKES, R.; PLIMPL, J.; TROJANEK, J.

Hofmann degradation of quaternary bases and salts containing unsaturated alkyl groups. X. Thermal splitting of 1,1-dimethyl-2-methylene pyrrolidinium hydroxide, In German. Coll.Cz.Chem. 24 no.9:3109-3114 S '59. (EEAI 9:5)

1. Laboratorium fur heterocyclische Verbindungen, Tschechoslowakische Akademie der Wissenschaften, Prag. 2. Institut fur allgemeine experimentelle organische Chemie, Technische Hochschule fur Chemie, Prag.
(Degradation) (Bases) (Salts) (Unsaturated compounds)
(Dimethylmethylenepyrrolidinium hydroxide) (Quaternary compounds)

PL IN 4.2

16(1) PHASE I BOOK EXPLOITATION 30V/2660

Vesoyuznyy matematicheskiy s'ezd. 3rd, Moscow, 1956

1. Matematicheskiye doklady (Transactions of the 3rd All-Union Mathematical Conference in Moscow. Vol. 4: Summary of Sectional Reports of Foreign Scientists) Moscow, Izd-vo AN SSSR, 1959. 247 p. 2,200 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Matematicheskiy Institut.

2. Matematicheskiye doklady (Transactions of the 3rd All-Union Mathematical Conference in Moscow. Vol. 4: Summary of Sectional Reports of Foreign Scientists) Moscow, Izd-vo AN SSSR, 1959. 247 p. 2,200 copies printed.

3. Matematicheskiye doklady (Transactions of the 3rd All-Union Mathematical Conference in Moscow. Vol. 4: Summary of Sectional Reports of Foreign Scientists) Moscow, Izd-vo AN SSSR, 1959. 247 p. 2,200 copies printed.

PURPOSE: This book is intended for mathematicians and physicists.

COVERAGE: The book is Volume IV of the Transactions of the Third All-Union Mathematical Conference, held in June and July 1956. The book is divided into two main parts. The first part contains summaries of the papers presented by Soviet scientists at the Conference that were not included in the first two volumes. The second part contains the text of reports submitted to the editor by foreign scientists. In those cases when the non-Soviet scientist did not submit a paper to the editor, the title of the paper is cited and, if possible, the paper is printed in a previous volume. Reference is made to the appropriate section of the book. Both Soviet and non-Soviet cover various topics in number theory, algebra, differential and integral equations, function theory, problems of mechanics and physics, computational mathematics, mathematical logic and the foundations of mathematics, and the history of mathematics.

- Abramov, I. Ya. (Alma-Ata). Application of matrix analysis to the problems of mechanizing computational processes 92
- Bel'skaya, L. K. (Moscow). L. N. Korolev (Moscow), I. S. Rubtin (Moscow), D. Yu. Ponomarev (Moscow), and S. M. Kuznetsov (Moscow). Automatic translation of one language into another on an electronic computer 93
- Blagov, Z. A. (Leningrad). On the approximate solution of boundary value problems for equations of elliptic type by the method of reduction to ordinary differential equations 93
- Butkin, V. A. (Moscow). On the theory of operational calculus for functions defined everywhere on a straight line 94
- Fl'yn, V. P. (Leningrad). A posteriori evaluation of error in the Runge-Kutta method for ordinary differential equations 94
- Kozlov, S. I. (Tbilisi). Reducible systems of difference equations and the stability of their solutions 96

Card 18/34

PLINATUS, A.A.; ZAVEL'GEL'SKIY, L.M.

Chemicalization of production in shoe factories. Kozh.-obuv. prom.
7 no.8:26-27 Ag '65. (MIRA 18:9)

PLINATUS, A.A.; RYZHIKH, A.V.

Give increased attention to the quality of production. Kozn.-obsv.
prom. 7 no.3:5-7 Mr '65. (MIRA 18:10)

L 01500-66 IWT(m)/EPF(c)/EPF(n)-2/ENG(m)/ENP(t)/ENP(b) IJP(c) JL/W/JG

ACCESSION NR: AP5014738

UR/0201/65/000/001/0052/0053

AUTHORS: Krasin, A. K.; Plindov, H. I.

TITLE: Contribution of the (n, 2n) and (n, alpha) effects in beryllium to the neutron multiplication coefficient

SOURCE: AN BSSR Izvestiya. Seriya fiziko-tekhnicheskikh nauk, no. 1, 1965, 52-53.

TOPIC TAGS: neutron interaction, alpha particle interaction, beryllium, neutron multiplication coefficient, critical mass, nuclear reactor moderator, nuclear reactor design

ABSTRACT: The purpose of the study was to determine the effect of the reactions mentioned on the critical masses and dimensions of physical assemblies with beryllium moderator and reflector, and to separate the contribution of the fast effect to the multiplication coefficient. To this end, ten-group constants were set up for beryl-

Card 1/3

L 01500-66

ACCESSION NR: AP5014738

lium. The $(n, 2n)$ reaction was regarded as inelastic scattering leading to the appearance of an additional neutron. The cross sections for the reactions were taken from the literature. To check on the constants, the age of the neutrons of the fission spectrum and the fast-neutron multiplication coefficient were determined for an infinite homogeneous beryllium medium. The value obtained for the neutron age (79 cm^2) agreed with the published data. The multiplication coefficient for fast neutrons was found to be 1.087, in good agreement with theoretical estimates. The resultant data were used to determine the critical masses and the critical dimensions of the physical assemblies described by A. K. Krasin et al. in paper No. 2146 at the second Geneva Conference in 1958. The results are tabulated and show that the fast effect in beryllium is 9--10%, somewhat lower than the $12 \pm 4\%$ cited in the Geneva paper, but still within the experimental error. The data of the present paper, being obtained in the multigroup approximation, are regarded as more accurate. Orig. art. has: 1 table.

Card 2/3

L 01500-66

ACCESSION NR: AP5014738

ASSOCIATION: None

SUBMITTED: 00

ENCL: 00

SUB CODE: NP

NR REF SOV: 002

OTHER: 010

Card

3/3 DP

116

Ca

Fate of carcinogenic substances in the organism. II. Distribution of benzopyrene in the organism after introduction in the blood and under the skin and its elimination in urine. I. P. Plindov (Belorus. State Med. Inst., Minsk). *Byull. Eksp. Biol. Med.* 21, 28-31(1943); *Ibid.* 10(1946). --Benzopyrene, after introduction into the blood, is distributed equally between the plasma and the erythrocytes; it remains in the blood only a short time, as it is collected in the liver and is eliminated with the bile into the intestine. Part of the hydrocarbon is retained by the kidneys and is eliminated in urine as a substance fluorescing similarly to the bile-elimination product. A considerable part is dissolved in the fatty tissues and forms a "depot" for a considerable time. Subcutaneous administration leads mainly to the latter phenomenon, with but little penetration to liver, intestine and lungs. III. Do carcinogenic hydrocarbons penetrate the hemato-encephalic barrier and do they pass into milk? I. P. Lariouov and M. N. Zaleskaya (Central X-ray Inst., Moscow). *Ibid.* 31-33. --Injection (intravenous) of 3,4-benzopyrene failed to produce any detectable amt. of the hydrocarbon in the spinal fluid even 24 hrs. after administration. As a check, it was shown that the hydrocarbon is amply sol. in the fluid for detection. Similar injection into the ear vein of a female rabbit failed to produce any detectable amts. of the material in the rabbit's milk, even after 4 days. G. M. Krasuloff

1ST AND 2ND ORDERS

PROCESS AND PROPERTIES INDEX

100 AND 4TH CATEGORIES

COMMON ELEMENTS

COMMON VARIANTS INDEX

OPEN

MATERIALS INDEX

ASB-SL-1 METALLURGICAL LITERATURE CLASSIFICATION

RECORD NUMBER

RECORD DATE

RECORD MONTH

RECORD DAY

RECORD YEAR

RECORD MONTH

RECORD DAY

RECORD YEAR

SOV/68-59-5-16/25

AUTHORS: Dakhnovskiy, S.A. and Pliner, A.I.

TITLE: Cold Repairs of a Group of Ovens in a Silica Battery
(Kholodnyy remont gruppy pechey v dinasovoy batareye)

PERIODICAL: Koks i khimiya, 1959, Nr 5, pp 47-50 (USSR)

ABSTRACT: A description of cold repairs of the five end walls in
a coke oven battery is given.
There are 4 figures.

ASSOCIATIONS: Teplotekhstantsiya and Yenakiyevskiy koksokhimiche-
skiy zavod (Yenakiyevo Coking Works)

Card 1/1

Pliner, A.I.

PLINER, A.I.; PRIT'KO, M.A.

Efficiency of replacing rectangular checker-bricks of regenerators with molded bricks in ovens of the PK system at the Yenakiyev Coke Chemical Plant. Koks i khim. no.12:28-29 '57. (MIRA 11:1)

1. Yenakiyevskiy koksokhimicheskiy zavod.
(Yenakiyev--Coke ovens)
(Firebrick)

AUTHORS: Malinskiy, G.A. and Pliner, A.I. SOV/68-59-8-8/32
TITLE: Degraphitisation of Ascension Pipes of Coke Ovens
(Obezgrafichivaniye stoyakov koksovykh pechey)
PERIODICAL: Koks i khimiya, 1959, Nr 8, p 21 (USSR)
ABSTRACT: An installation for the degraphitisation of ascension pipes based on blowing compressed air from a nozzle on to the surface of the pipe during the whole operation of pushing coke was put into operation on the Enakeyevsk Works. The installation is sliding on special rails fixed to the pusher arm (see figure). In this way deposited carbon is burned out which considerably decreased the necessity for cleaning the pipe with a brush. There is 1 figure.
ASSOCIATION: Yenakiyevskiy koksokhimicheskiy zavod
(Yenakiyevo Coking Works)

Card 1/1

PLINER, A.I.

AUTHORS: Pliner, A.I. and Prit'ko, M.A.

68-12-10/25

TITLE: The Effect of Replacing Rectangular Checkers by Shaped Checkers in Regenerators of Ovens of the PK System in the **Yenakiyevo Coke-chemical Plant** (Effektivnost' zameny pryamougol'noy nasadki regenerátorov na fasonnuyu v pechakh sistemy **PK Yenakiyevskogo koksokhimicheskogo zavoda**)

PERIODICAL: Koks i Khimiya, 1957, No.12, pp. 28 - 31 (USSR)

ABSTRACT: The above change of checkerwork and blocking of cracks in the brickwork of regenerator walls had the following effects: 1) a considerable decrease in resistance of the heating system which permitted using blast furnace gas without decreasing the ovens' throughput; 2) a considerable decrease in gas consumption for heating ovens, and 3) an increase of temperature in the end heating flues. A comparison of heating conditions before and after changing the checkerwork is shown in the table.

ASSOCIATION: **Yenakiyevo Coke-chemical Plant** (Yenakiyevskiy koksokhimicheskiy zavod)

AVAILABLE: Library of Congress
Card 1/1

PLINER, A.I.; KUSHNAREV, V.A.

Temperature control ofovens with wide-open top dampers. Koks i
khiz.no.4:63 '56. (MIRA 9:9)

1.Yonakiyevskiy koksokhimicheskiy zavod.
(Coke ovens)

PLINER, B. L.

BUTAKOV, S.Ye., mayor meditsinskoy sluzhby; PLINER, B.L., mayor meditsinskoy
sluzhby

Alcohol vaccine for treating chronic dysentery. Voen.-med.zhur. no.10:
71-72 0 '56. (MLA 10:3)
(DYSENTERY) (VACCINES)

SHERDYUKOV, Ya.I.; PLINER, D.S.

Using vibration methods in boring holes for engineering geology
research. Osn., fund. i mekh. grun. no.2:23-25 '59.
(MIRA 12:7)

(Vibrators) (Boring machinery)

AFANAS'YEV, S.V.; PLINER, G.Ye.; CHEREPKOVA, K.F.

Investigating the recrystallization process and texture formation
in cold-rolled strip of 50NP permalloy. Fiz. met. i metalloved.
16 no.2:251-255 Ag '63. (MIRA 16:8)

1. Leningradskiy staleprokatnyy zavod.
(Permalloys---Metallography)
(Crystallization)

1 09005-67 EWT(m)/EWP(w)/EWP(t)/ETI IJP(c) JD/HW
ACC NR: AP6027782 SOURCE CODE: UR/0126/66/022/001/0027/0031

AUTHOR: Afanas'yev, S. V.; Barsukov, V. N.; Pliner, G. Ye.; Cherepkova, K. F.

ORG: Leningrad Steel Rolling Plant (Leningradskiy staleprokatnyy zavod)

TITLE: Recrystallization and magnetic properties of permalloy 65N

SOURCE: Fizika metallov i metallovedeniye, v. 22, no. 1, 1966, 27-31

TOPIC TAGS: permalloy, metal recrystallization, magnetic property, magnetic permeability /
/ permalloy 65N

ABSTRACT: Permalloy 65N (0.02% C, 0.44% Mn, 0.21% Si, 0.008% P, 0.007% S, 65.5% Ni, remainder Fe) differs from the other binary Fe-Ni alloys in that it acquires high magnetic properties only after its heat treatment in a magnetic field, due to the attendant directional ordering of its atoms which results in the rise of magnetic anisotropy. In this connection, the authors investigated the effect of the degree of deformation (from 17 to 98.6%) and temperature of annealing (from 700 to 1200°C) on the structure of this alloy and on its magnetic properties before and after thermomagnetic treatment. The thermomagnetic treatment itself was carried out in a vacuum (residual pressure 10^{-2} mm Hg) at 650°C in a 10-oersted magnetic field. Grain

Card 1/3

UDC: 669.15'24.018.58

L 089005-67

ACC NR: AP6027782

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size was examined metallographically and magnetic properties were measured by the ballistic d-c method. Findings: on the basis of the concomitantly plotted recrystallization diagram (Fig. 1) it is established that three basic types of recrystallization structures may be induced in permalloy 65N for the degrees of deformation and temperatures considered. Thus, for the

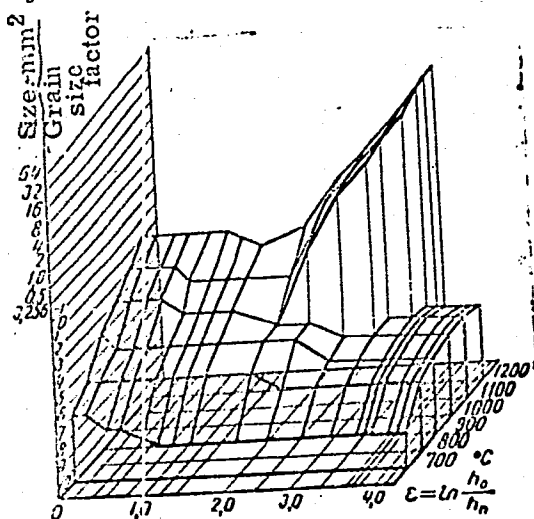


Fig. 1. Recrystallization diagram of the alloy 65N

I. 09005-67

ACC NR: AP6027782

deformation $\epsilon < 2.0$ (85%) grain size monotonically increases with temperature, the recrystallized grains display non-ordered orientation and the recrystallization is either primary or preliminary; For $\epsilon > 2.0$ annealing temperatures below 1000°C lead to the formation of a cubic texture of primary recrystallization; and for $\epsilon \sim 2.0-2.3$ (85-90%), following annealing at 1000°C , large extended grains of secondary recrystallization are observed. The specimens displaying the maximum magnetic permeability (450,000-500,000 gauss/oersted), the most rectangular hysteresis loop and the lowest coercive force (~ 0.002 oersted) were found to be those which, prior to their thermomagnetic treatment, had a secondary recrystallization structure with maximally large grains. "The authors are indebted to the late Professor V. S. Mes'kin for a critical examination of the MS and for his interest in this project." Orig. art. has: 3 figures.

SUB CODE: 11, 20, 13/ SUBM DATE: 25Nov64/ ORIG REF: 008/ OTH REF: 002

Card 3/3 nst

PLINER, L.A.; PERVUKHIN, A.G., glavnyy inzhener.

Introducing advanced technology in the Karpunino Forest Industry
Establishment. Mekh.trud.rab. 10 no.2:33-35 F '56. (MLBA 9:5)

1. Direktor lespromkhozsa (for Pliner)
(Karpunino--Lumbering)

PLINER, L., inzh. po trudu; SLAVIN, A., inzh. (Novokuznetsk); YATSKOVETS, I.

From the editors' mail. Sots. trud 7 no.9:146-147 S '62.
(MIRA 15:9)

1. Nachal'nik otдела труда i zarabotnoy platy Upravleniya
khimicheskoy promyshlennosti Belorusskogo soveta narodnogo
khozyaystva (for Yatskovets).

(Latvia--Precast concrete construction)
(Kemerovo Province--Wages--Construction industry)
(White Russia--Chemical industries)

S/137/61/000/012/084/149
A006/A101

AUTHORS: Genis, A.A., Kabo, M.A., Pliner, L.R., Sunakslis, Ya.M., Timbars, T.M., Yanushkovskiy, V.A.

TITLE: Experiences in the use of relay-type radioactive devices in automating technological processes at the "Sarkanais Metallurgs" Plant

PERIODICAL: Referativnyy zhurnal. Metallurgiya, no. 12, 1961, 15, abstract 12D105 (V sb. "Radioakt. izotopy i yadern. izlucheniya v nar. kh-ve SSSR, v. 3", Moscow, Gostoptekhizdat, 1961, 145)

TEXT: At the Liepaya metallurgical plant a number of operations of technological processes are being automated with the aid of control equipment manufactured by serial production. Automation is based on the use of radioactive isotopes. The following operations are being automated: control of the automatic removal of the sheet off the finished metal conveyer belt; blocking unit on cold cutting shears of mill 350; control of the compressor unit operation at the oxygen station GK-3) (GK-30). The introduction of radioactive automation led to improved labor conditions and reduced the number of workers. N. Yudina
[Abstracter's note: Complete translation]

Card 1/1

PLINER, M.A.

Penicillin for preventing suppurations complicating injuries of the face and jaws. Stomatologia 35 no.5:34-36 S-O '56 (MLRA 10:4)
(PENICILLIN) (JAWS--WOUNDS AND INJURIES)

PLINER, M.A.

~~CONFIDENTIAL~~
Treatment of a case of glossalgia with therapeutic sleep. Stomatologiya,
Moskva no.4:56 1951. (CJML 21:2)

PLINER M.A.

PLINER, M.A.

Clinical aspects of actinomycosis of the tongue. Sov.med.19
no.8:72-74 Ag '55. (MLRA 8:10)

(TONGUE, diseases
actinomycosis, clin.aspects)
(ACTINOMYCOSIS,
tongue, clin.aspects)

EXCERPTA MEDICA Sec 11 Vol 9/8 O.R.L. Aug 56

1386. PLINER M. A. *To the problem of actinomycosis of the tongue (Russian text) SOVETSK.MED. 1955, 8 (72-74)
Of 17 cases of actinomycosis of the cervico-facial area in 4 the tongue was affected. The course was acute in one case and lasted from 9 months to 5 yr. in 3 cases. Drainage, injections of penicillin and actinolysate (no details concerning this product are mentioned in the article) gave favourable results.
Prujansky - Tel Aviv (XI, 6*)

PLINER M. A.

"The Use of Penicillin For Prevention of Septic Complications in the Case of Trauma of Cheekbones," Voenno-Med. Zhur., No. 11, p. 83, 1955.

Pliner, M.A.

PLINER, M.A.; VOLKOV, S.I.

Some data on the effect of ionizing radiation (medium doses) on
open injuries to the lower jaw in rabbits; preliminary report.
Stomatologia 36 no.6:39-42 N-D '57. (MIRA 11:2)
(JAWS--FRACTURE)
(RAYS--PHYSIOLOGICAL EFFECT)

PLINER, M.A.

PLINER, M.A. (Moscow); KOTOVA, A.P. (Moscow)

A case of lingual actinomycosis. Stomatologia no.6:54-55 '53. (MLPA 7:1)
(Tongue--Diseases) (Actinomycosis)

PLINER, M.A.

EXCERPTA MEDICA Sec.6 Vol.10/12 Internal Medicine D'56

7158. PLINER M.A. *To the problem of actinomycosis of the tongue (Russian text) SOVETSK. MED. 1955, 8 (72-74)

Of 17 cases of actinomycosis of the cervico-facial area in 4 the tongue was affected. The course was acute in 1 case and lasted from 9 months to 5 yr. in 3 cases. Drainage, injections of penicillin and actinolysate (no details concerning this product are mentioned in the article) gave favourable results.

Prujansky - Tel Aviv (XI, 6)

PLINER, M.A., kand. med. nauk

Review of V.S. Dmitrieva and A.I. Rybakov's book "Experi-
mental treatment of jaw traumas in acute radiation sickness."
Stomatologiia 42 no.3:104-106 My-Je '63 (MIRA 17:1)

PLINER, M.A.

Tuberculous lymphadenitis of the submaxillary region and the neck.
Stomatologia 40 no.3:71-74 My-Je '61. (MIRA 14:12)
(LYMPHATICS--TUBERCULOSIS) (NECK--DISEASES)
(JAWS--DISEASES)

PLINER, M.A. (Podol'sk).

Use of tissue therapy in maxillofacial surgery. Stomatologiya no.4:43-46
Jl-Ag '53. (MLA 6:9)
(Tissue extracts) (Jaws--Surgery) (Face--Surgery)

PLINER, M.A.

Excerpta Medica Sec 9 Surgery Vol. 8/7 July 1954

4166. PLINER M.A. *The use of tissue therapy in stomatology
(Russian text) STOMATOLOGIJA 1953, 4 (43-46)
Transplantation of heterogenous tissues of spleen and sex glands (preserved according to the method of Rumjancev) was used with success in 15 cases of chronic inflammation or osteomyelitis of the facial region and jaws.

Adamek - Náchod

GLAZUNOV, A.A.; PLINER, M.A.

Pyrolysis of hydrocarbons in the upper portion of the cupola of coke
ovens. Koks i khim. no. 5:33-36 '61. (MIRA 14:4)

1. Yenakiyevskiy koksokhimicheskiy zavod.
(Coc1—Carbonization)

PISAKIN, N.N.; PLINER, M.D.; POLOZOV, V.R.; RYASHCHENKO, B.R.; AZAROV,
E.K., red.; SHERMUSHENKO, T.A., tekhn.red.

[Planning perspective for training personnel in an industrial
enterprise] Perspektivnoe planirovanie podgotovki kadrov pro-
myshlennogo predpriatiia. Leningrad, Lenizdat, 1960. 38 p.

(MIRA 13:7)

(Leningrad--Machinery industry)

(Employees, Training of)

PLINER, MIKHAIL DAVYDOVICH

N/5
752.21
.P7

KHOZIYSTVENNIY RASCHET I RENTABEL'NOST'. SEBESTOIMOST' I TSENA
(COST ACCOUNTING AND PROFIT. NET COST AND PRICE) Leningrad, IZD-VO LENINGRADSKOGO
UNIVERSITETA, 1956.

54 P.

AT HEAD OF TITLE: Leningrad. UNIVERSITET.

BIBLIOGRAPHICAL FOOTNOTES.

L 20888-66 EWT(1)/EEC(k)-2

ACC NR: AP6002525

SOURCE CODE: UR/0286/65/000/023/0032/0032

AUTHOR: Pliner, R. I.

ORG: none

TITLE: A pulse voltmeter for measuring voltages at the end of a pulse. Class 21, No. 176630

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 23, 1965, 32

TOPIC TAGS: measuring instrument, voltmeter

ABSTRACT: This Author Certificate presents a pulse voltmeter for measuring voltages at the end of a pulse. The voltmeter contains a reservoir capacitor which discharges to a high ohm circuit with a measuring pointer-type instrument. The unit is designed to provide a direct reading of the voltage magnitude at the end of a square pulse having a flat top which falls off. An intermediate capacitor is connected in parallel with the reservoir capacitor but is separated from it by a resistor. Two switches made by transistors with a common emitter circuit are also included (see Fig. 1). The collector-emitter junction of the first transistor is connected in parallel with the intermediate capacitor. The

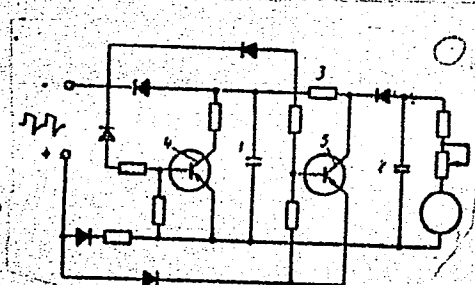
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AGC NR: AP6002525

Fig. 1. 1 - intermediate capacitor;
2 - reservoir capacitor;
3 - resistance separating
capacitor 1 from capacitor 2;
4 and 5 - switches made of transistors.



collector-emitter junction of the second transistor is connected in series with the resistor which separates the intermediate capacitor from the reservoir capacitor. Orig. art. has: 1 figure.

SUB CODE: 09/ SUBM DATE: 26Sep64

Card 2/2

OLISOV, V. S., dotsent; PLINER, R. I., kand. med. nauk

Meniere's disease. Terap. 34 no.1:44-48 '62. (MIRA 15:7)

1. Iz kafedry gosspital'noy terapii (zav. - prof. P. K. Bulatov)
i kafedry bolezney ukha, gorla i nosa (zav. - chlen-korrespondent
AMN SSSR prof. V. F. Undrits) i Leningradskogo meditsinskogo
instituta imeni I. P. Pavlova.

(MENIERE'S DISEASE)

PUGULEVSKIY, D.A., dots., PLINER, R.I.

Late results of tonsillectomy in patients with rheumatic fever and focal infection (chronic tonsillitis). Trudy LMI 2:178-185 '55 (MIRA 11:8)

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(TONSIL--SURGERY)
(RHEUMATIC FEVER)

PLINER
ca

116

Residual nitrogen of the blood in acute rheumatism
K. I. Pliner. *Soviet. Vrachebnyi Zhurn.* 42, 257-59 (1938);
Copey. Zashch. 1938, II, 2454. -- In acute articular rheuma-
tism the residual N in the blood is more or less strongly in-
creased; it varies between 36.4 and 112 mg. %. This
increase is especially marked in the acute stages of the
disease, so that there is a rather far-reaching agreement
between the clinical course of the disease and the residual-
N values.
M. G. Moore

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PLIHER, S., starshiy inzh.

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